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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/727,163

12/02/2003

Simon Robert Walmsley

PEA03US

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SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

UHLENHAKE, JASON S

ART UNIT

PAPER NUMBER

2853

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

04/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|--|--|--|--|
| <p align="center">Office Action Summary</p> | <p>Application No.</p> <p align="center">10/727,163</p> | <p>Applicant(s)</p> <p align="center">WALMSLEY ET AL.</p> | |
| | <p>Examiner</p> <p align="center">Jason Uhlenhake</p> | <p>Art Unit</p> <p align="center">2853</p> | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madeley (U.S. Pat. 6,637,860) in view of Teshigawara et al (U.S. Pub. 2002/0171709).

Madeley discloses:

- ***regarding claim 1***, comprising at least first and second printhead modules, each comprising a plurality of printing nozzles spanning a respectively different printhead width (different nozzle count), the printhead modules being disposed adjacent to each other to define a page width for printing across the page width (Column 7, Lines 32-43)

Madeley does not disclose expressly the following:

- a printer controller for supplying dot data to a printhead in a predetermined order; order and time supply of the dot data to the printhead modules such that the difference in the printing widths of the printhead modules and any relative displacement between the printing nozzles of the printhead modules in a direction normal to the printhead printing width are at least partially compensated for

Teshigawara discloses:

- **regarding claim 1**, a printer controller (200) for supplying dot data to a printhead in a predetermined order; order and time supply (predetermined processing) of the dot data to the printhead modules such that the difference in the printing widths (Figure 4) of the printhead modules and any relative displacement between the printing nozzles of the printhead modules (Paragraphs 0048-0049) in a direction normal to the printhead printing width are at least partially compensated for (Controller 200; Paragraphs 0037, 0041, 0043), for the purpose of allowing high image quality printing without a significant reduction in overall printing speed.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Teshigawara into the device of Madeley, for the purpose of allowing high image quality printing without a significant reduction in overall printing speed.

Claims 2-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Madeley (U.S. Pat. 6,637,860) as modified by Teshigawara et al (U.S. Pub. 2002/0171709) as applied to claim 1 above, and further in view of Haflinger (U.S. Pub. 2002/0180816) and Tayuki (U.S. Pub. 2002/0113985).

Madeley as modified by Teshigawara does not disclose expressly the following:

- **regarding claim 2**, configurable to provide compensation for any of a plurality of different amounts of the relative displacement

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- **regarding claim 3**, printer controller being controllable to introduce a relative delay into the dot data supplied to one or more of the rows, thereby to provide the compensation; the printhead modules comprises a plurality of parallel rows of the printing nozzles, the printhead being configured such that each of the rows of each printhead module has a corresponding row in each of the other printhead modules

- **regarding claim 4**, the printhead is configured to print the dots at a predetermined spacing in a direction in which print media is supplied for printing, wherein the delay introduced by the printer controller equates to an integral multiple of the spacing during printing

Haflinger discloses the following:

- **regarding claim 2**, configurable to provide compensation for any of a plurality of different amounts of the relative displacement (Figures 4 – 10; Paragraphs 0039, 0041 – 0042), for the purpose of improving the image quality of an ink jet printer

- **regarding claim 3**, printer controller being controllable to introduce a relative delay into the dot data supplied to one or more of the rows, thereby to provide the compensation (Paragraph 0043), for the purpose of improving the image quality of an ink jet printer

- **regarding claim 4**, the printhead is configured to print the dots at a predetermined spacing in a direction in which print media is supplied for printing, wherein the delay introduced by the printer controller equates to an integral multiple of the spacing during printing (Figures 3 – 10; Abstract; Paragraphs 0038, 0040 – 0042), for the purpose of improving the image quality of an ink jet printer

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Tayuki discloses:

- ***regarding claim 3***, the printhead modules comprises a plurality of parallel rows of the printing nozzles, the printhead being configured such that each of the rows of each printhead module has a corresponding row in each of the other printhead modules (Figure 3; Paragraph 0160), for the purpose of adjusting misalignment of recording positions.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Tayuki and Haflinger into the device of Madeley as modified by Teshigawara, for the purpose of adjusting misalignment of the recording positions and improving the image quality of an ink jet printer.

Response to Arguments

Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejection regarding Madeley (U.S. Pat. 6,637,860) in view of Teshigawara et al (U.S. Pub. 2002/0171709).

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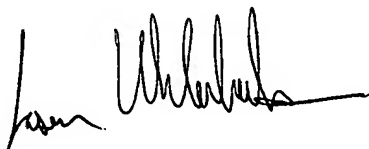
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSU
March 26, 2007



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER